Naval Facilities Engineering Command

Abstract of an Accident

FY95-7

MISHAP TYPE: Electrocution

INJURY: Fatality

TYPE OF WORK: Splicing High Voltage Overhead Line

EQUIPMENT: Bucket Truck

DESCRIPTION OF MISHAP

A High Voltage Electrician was electrocuted by 4160 Volts when he contacted an energized overhead power line with his bare hands. The fatality occurred when a two-man crew, consisting of the electrician and a helper (also an electrician), attempted to permanently repair a temporarily spliced overhead power line. The electrician and his assistant had cut the power to the line from a nearby transformer; however, the lines were being fed from a different location. Thinking the power to the line was off; they began repairing the line. Working from an elevated bucket, the electrician initially worked while wearing his insulated gloves, but later removed them to rejoin the line into a crimp sleeve for the final phase of the repair. With his bare hands, he grasped the two ends of the energized 4160 volt line and was immediately electrocuted. The assistant, working in the bucket next to him, lowered the bucket and summoned emergency personnel, but the electrician died within minutes.

DIRECT CAUSE

Failure to follow standard Lockout/Tagout/Tryout/Groundout procedures

INDIRECT CAUSES

No SOP for operation, inadequate supervision, inadequate LO/TO program oversight, inadequate employee development/certification.

LESSONS LEARNED

Jobs involving lethal voltages should not be considered routine. No SOPs based on JHAs were completed on this job because it was considered a routine, low-risk job. Larger jobs received full written guidance.

Supervision must treat <u>all</u> jobs involving electricity with the respect it warrants not just large jobs. The supervisor rarely visited jobs in progress or small-scale jobs like this one, but routinely visited larger jobs.

Evaluation and enforcement of LO/TO program requirements is critical to implementing this program throughout an activity. The evaluation of the activity's program did not involve reviewing employee's performance applying the program in the field. Supervisors did not routinely enforce the requirements.

Employees did not receive specialized training critical to their trade sufficient to work in a safe manner. Generally, employees are hired in at a skill level, there is no system to improve/certify employee skills.